

# ASH GROVE CEMENT COMPANY



"WESTERN REGION"

June 27, 2005

Mr. Fred Austin  
Puget Sound Clean Air Agency  
110 Union Street, Suite 500  
Seattle, WA. 98101-2038

Re: Iron Grit Screening

Dear Mr. Austin:

Please examine the attached project description and estimate and advise if it is exempt under Regulation I Section 6.03 (b)(10). Ash Grove believes this project qualifies as an exempt activity since this project results in an emission estimate increase of about 600 lbs for PM and about 260 lbs/year PM<sub>10</sub>.

Yours truly,

Gerald J. Brown  
Manager Safety and Environmental

cc: C. Puljan  
B. Vantuyl

## Iron Grit Screening

This project is associated with importing Iron Grit, Screening it on-site and introducing it to the cement process as a feedstream iron supplement.

Process. Iron Grit is delivered in belly dump trucks and stockpiled onsite in an area 20' x 40'. 1000 tons per month are delivered and screened each month. The screening operation will occur 1 day per week and will last 5 hours per day. A loader will pick up the stockpiled material and load it onto the grizzly where it will be screened to minus ½ inch. Oversize material will be diverted to one stockpile (20' x 40' pile) and taken offsite. Undersized material will be diverted to another pile (20' x 40' pile) for storage. A loader will then introduce this material onto a hopper which will transfer the material to the iron storage bin.

### Emission points.

Three (3) piles 20 x 40 feet in dimension

Truck dump

Material transfer to grizzly

Grizzly to piles

Loader to hopper

Throughput: 1000 ton/month

### Emission Calculation.

4 transfers: 1000 tons/month, Truck to ground, Loader to grizzly, grizzly to pile, pile to process.

3 piles: each 20' x 40' → 2400 ft<sup>2</sup> total area

Transfer emissions: AP-42 emission factor, Section 11.12 Concrete Batching, October, 2001:

Sand transfer (SCC 3-05-011-05): 0.0021 lb PM/ton sand

- Annual emissions (lb/yr) = 0.0021 lb/ton x 12,000 ton/yr x 4 transfers = 100 lb/yr
- Assume 50% PM<sub>10</sub>: 50 lb/yr PM<sub>10</sub>

Screening emissions: AP-42 emission factor, Section 11.19.2 Crushed Stone Processing and Pulverized Mineral Processing August, 2004: Screening (SCC 3-05-020-02): 0.025 lb PM/ton

- Annual emissions (lb/yr) = 0.025 lb/ton x 12,000 ton/yr = 300 lb/yr PM
- Annual emissions (lb/yr) = 0.0087 lb/ton x 12,000 ton/yr = 104 lb/yr PM<sub>10</sub>

Transfer to pile storage: AP-42 emission factor, Table 11.12-3 Aggregate delivery to ground storage (SCC 3-05-011-21): 0.0064 lb/yd<sup>3</sup> Maximum 1000 tons at any one time, sand density = 120 lb/ft<sup>3</sup>

- Annual emissions (lb/yr) = 0.0064 lb/yd<sup>3</sup> / 27 ft<sup>3</sup>/yd<sup>3</sup> x 1000 ton/mo / 120 lb/ft<sup>3</sup> x 2000 lb/ton x 12 months/yr = 47 lbs/yr x 3 piles = 142 lbs/yr PM

Pile Storage: AP-42 emission factor, Table 8.10-2 Emission factors for concrete batching (SCC 3-05-011), October, 1985, Wind erosion from sand and aggregate storage piles: 3.5 lbs/acre/day Annual emission (lb/yr) = 3.5 x 2,400/43,560 X 365 = 70 lbs/yr PM, (assuming 50% PM<sub>10</sub>), 35 lbs/yr PM<sub>10</sub>

***Annual Emissions Increase Summary: PM- 612 lbs/yr PM<sub>10</sub>- 260 lbs/yr***

# ASH GROVE CEMENT COMPANY



"WESTERN REGION"

July 6, 2005

Mr. Fred Austin  
Puget Sound Clean Air Agency  
110 Union Street, Suite 500  
Seattle, WA. 98101-2038

Re: Iron Grit Screening

Dear Mr. Austin:

On June 28, 2005 you responded with several questions (below) regarding our request for an Agency determination of exemption under Regulation I Section 6.03 (b)(10) for Iron Grit Screening.

- 1) "What are the sources of this iron grit?"  
It comes locally from the ship repair businesses.
- 2) "Are there any additional or new pieces of equipment that would be installed or used, or added to the kiln?"  
The material needs to be screened. A portable screen would be used for this. There will be no new equipment added to the kiln.
- 3) "Does this iron grit replace other materials currently used in the kiln?"  
Yes. The iron grit replaces the Teck Cominco iron slag.
- 4) "What are the differences in the chemistry of this iron grit compared with any other materials it replaces in the kilns?"  
The enclosed environmental analysis is included for your review.
- 5) "Could there be changes in the emissions from the kiln associated with the use of this material not just the fugitive emissions?"  
We believe not. The usage rate of this material will be ~100 tons/month. The included environmental assessment form details what we believe to be the relevant impacts, or lack of.

Yours truly,

Gerald J. Brown  
Manager Safety and Environmental

cc: C. Puljan



Working together for clean air

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110 Union Street

Suite 500

Seattle, WA 98101-2038

June 9, 2006

Gerald Brown  
Ash Grove Cement  
3801 E. Marginal Way  
Seattle, WA 98134

Dear Mr. Brown:

Registration No. 11339  
Notice of Construction (NOC) No. 9282  
Exemption from NOC Requirements

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Marina Coler-Wildsmith

After looking over your recent request for a review of the use of Iron Grit at your Seattle facility, the Puget Sound Clean Air Agency has determined that this installation as described does not require Notice of Construction approval as allowed by Section 6.03(b)(10) of Regulation I, which exempts "Any source not otherwise exempt under Section 6.03(c) of this regulation that has been determined through review of a Notice of Construction application by the Control Officer not to warrant an Order of Approval because it has a de minimis impact on air quality and does not pose a threat to human health or the environment."

Please inform us of any future modifications or other installations because some changes or equipment may require a Notice of Construction approval or notification in compliance with Article 6 of Regulation I.

If you have any questions, call Fred Austin at (206) 689-4055 or me at (206) 689-4052.

Sincerely,

Steven M. Van Slyke, P.E.  
Supervisory Engineer

SMV:ns

cc: F. Austin  
E. Gilpin